

Atty's Docket: 101215-117

SUPPLEMENTAL CLAIM AMENDMENTS

Amend claim 21 as indicated below.

1. - 8. (Canceled)

9. (Previously presented) A process for microbial leaching of a sulfidic material, the process comprises the steps of:

a) preparing an aqueous leaching fluid consisting of

at least one sulfur-containing amino acid selected from the group consisting of cysteine, methionine, homocysteine, and and/or amides and esters, thereof, and optionally a buffer;

b) contacting said fluid with the sulfidic material for a length of time sufficient to achieve leaching,

wherein bacteria of the genus *Thiobacillus* are either a component of the aqueous leaching fluid of step (a) or, the bacteria are added to a discharging fluid, wherein said discharging fluid comprises the aqueous leaching fluid resulting from the performance of step (b).

10. (Previously presented) The process of claim 9 wherein the leaching fluid includes the bacteria.

11. (Canceled)

12. (Previously presented) The process of claim 9 wherein the bacteria are added to the discharging fluid.

13. (Previously presented) The process of claim 9 wherein, the total concentration of the at least one sulfur-containing amino acid is equal to or less than 8×10^{-3} M.

14. (Previously presented) The process of claim 9 wherein the pH of the leaching fluid is between 1 and 4.

Atty's Docket: 101215-117

15. (Previously presented) The process of claim 14, wherein the pH of the leaching fluid is between 1.5 to 2.

16. (Previously presented) The process of claim 9, wherein the bacteria are *Thiobacillus ferrooxidans*.

17. (Previously presented) The process of claim 9, wherein the sulfidic material comprises one or more sulfide ores.

18. (Previously presented) The process of claim 9, wherein the sulfidic material is pyrite.

19. (Currently amended) The process of claim 9, wherein the aqueous leaching fluid consists of a mixture of sulfur-containing amino acids or their amides and esters, the sulfur-containing amino acids being selected from the group consisting of cysteine, methionine, homocysteine, and/or amides and esters thereof, and optionally a buffer.

20. (Canceled)

21. (Currently amended) A process for microbial leaching of a sulfidic material, wherein the process comprises the steps of:

a) preparing an aqueous leaching fluid consisting of

at least one sulfur-containing amino acid selected from the group consisting of cysteine, methionine, homocysteine, and/or amides and esters, thereof, bacteria of the genus *Thiobacillus*, optionally a buffer, and

b) contacting said aqueous leaching fluid with the sulfidic material for a period of time sufficient to achieve leaching.

22. (Previously presented) The process of claim 9, wherein the leaching fluid consists of at least one amide or ester of a sulfur containing amino acid selected from the group of methionine, cysteine, and homocysteine, and optionally, a buffer.

23. (Previously presented) The process of claim 21, wherein the total concentration of the at least one sulfur-containing amino acid or the amide or ester thereof, is equal to

Atty's Docket: 101215-117

or less than 8×10^3 M.

24. (Previously presented) The process of claim 21, wherein the leaching fluid consists of at least one amide or ester of a sulfur containing amino acid selected from the group of methionine, cysteine, and homocysteine.